Summary

Environmental noise is a common and preventable cause of hearing loss in industrialized societies. Hearing loss due to injurious noise at workplace is referred to as occupational noise-induced hearing loss.

Repeated exposure to high levels of noise is a major cause of deafness, particularly in certain Industrial occupations. Noise induced hearing loss is a process of permanent metabolic Cochlear damage caused by chronic exposure to loud sound levels between 90dB and 140dB.

Textile industry is one of the noisiest ones, especially in weaving and spinning sections, what explains the prevalence of NIHL in such departments. The risk of developing NIHL lies on duration and level of noise at which worker is exposed, even wearing individual ear protectors, as this device reduces intensity of environment noise only in 10 to 15 dB .

Typically, the first sign of hearing loss due to noise exposure is a "notching" of the audiogram at 3000, 4000, or 6000 Hz, with recovery at 8000 Hertz (Hz). Over a period of years of prolonged noise exposure, hearing loss due to noise expands to involve additional frequencies. This, together with the effects of aging, may reduce the prominence of the "notch." so in older

individuals, the effects of noise may be difficult to distinguish from presbycusis without access to previous audiograms.

Individuals with noise-induced hearing loss may experience significant morbidity due to hearing loss, concomitant tinnitus, and impaired speech discrimination. On the job, such hearing loss can impact worker communication and safety. Other conditions associated with hearing loss may be depression, social isolation.

In fact, preventing noise-induced hearing loss would probably do more to reduce the societal burden of hearing loss than medical and surgical treatment of all other ear diseases combined.

An effective hearing loss prevention program involves a comprehensive effort consisting of the following elements:

(a) Performing initial and annual audits of the work environment.

(b) Assessment of noise exposures.

(c) Engineering and administrative control of noise exposures.

(d) Audiometric evaluation and monitoring of hearing.

(e) Appropriate use of personal hearing protection devices.

(f) Education and motivation.

(g) Record keeping.

(h) Program evaluation for effectiveness.